

TSMC-02-420

April 2, 2004

To: Commissioner for Patents
P.O.Box 1450
Alexandria, VA 22313-1450

Fr: George O. Saile, Reg. No. 19,572
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Subject: | Serial No. 10/757,204 01/14/04 |

Chih-Ming Ke et al.

A NEW APPROACH TO IMPROVE ELLIPSO-
METER MODELING ACCURACY FOR SOLVING
MATERIAL OPTICAL CONSTANTS N & K
| _____ |

INFORMATION DISCLOSURE STATEMENT

Enclosed is Form PTO-1449, Information Disclosure Citation
In An Application.

The following Patents and/or Publications are submitted to
comply with the duty of disclosure under CFR 1.97-1.99 and
37 CFR 1.56.

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being
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P.O. Box 1450, Alexandria, VA 22313-1450, on April 2, 2004.

Stephen B. Ackerman, Reg.# 37761

Signature/Date


SB Ackerman 4/12/04

The following four U.S. Patents describe a composite optical measurement system that involves internal calibration as well as n and k measurements of single layer or multi-layer film stacks:

- 1) U.S. Patent 5,798,837 to Aspnes et al., "Thin Film Optical Measurement System and Method with Calibrating Ellipsometer".
- 2) U.S. Patent 6,304,326 to Aspnes et al., "Thin Film Optical Measurement System and Method with Calibrating Ellipsometer."
- 3) U.S. Patent 6,411,385 to Aspnes et al., "Thin Film Optical Measurement System and Method with Calibrating Ellipsometer."
- 4) U.S. Patent 6,417,921 to Rosencwaig et al., "Apparatus for Analyzing Multi-Layer Thin film Stacks on Semiconductors."

U.S. Patent 6,057,928 to Li et al., "Free-Space Time-Domain Method for Measuring Thin Film Dielectric Properties," describes a non-contact method for determining the index of refraction or dielectric constant of a thin polymer film on a silicon substrate in the GHz to THz frequency range.

Sincerely,


Stephen B. Ackerman,
Reg. No. 37761

APR 15 2004

Use several sheets if necessary)

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Chih-Ming Ke et al.

Final Date

01/14/04

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A circular stamp from the Office of Intellectual Property (OIP). The text "OIP" is at the top, "JG125" is on the right, and "PATENT & TRADEMARK OFFICE" is at the bottom. In the center, it says "APR 15 2004".

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FOREIGN PATENT DOCUMENTS

[illegible]

OTHER DOCUMENTS (Including Author, Title, Date, Portion(s) Pages, Etc.)

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DATE COMPLETED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.